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A study by the RAND Institute for Civil Justice

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TECHNICAL REPORT

Mandatory Workplace Safety and Health Programs

Implementation, Effectiveness, and
Benefit-Cost Trade-Offs

Tom LaTourrette, John Mendeloff

Sponsored by the Commonwealth of Pennsylvania



CENTER FOR HEALTH AND SAFETY
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Summary

In 1998, the Occupational Safety and Health Administration (OSHA) began to develop a standard that would have required all workplaces to establish a “safety and health program.” A safety and health program uses management tools that address general behaviors and procedures to reduce the risk of occupational injuries and illnesses. Safety and health programs typically have four main components:

- management commitment and employee involvement
- worksite analysis
- hazard prevention and control
- safety and health training.

Several states already had regulations requiring safety and health programs. Others—and OSHA itself—provide incentives for employers to voluntarily adopt safety and health programs. OSHA argued that establishments that had safety and health programs had lower rates of injuries and illnesses. OSHA chose to abandon its rulemaking effort, partly because its proposal for an ergonomics standard drew most of the agency’s standard-setting resources away from other areas and partly due to opposition from the business community. Critics of the proposed standard charged that the requirements were vague and left too much discretion to inspectors, that the evidence for the effectiveness of mandates for safety and health programs was unconvincing, and that the cost to employers of implementing such programs was very high and greatly underestimated by OSHA.

Interest remains at both the federal and state levels in finding ways to increase the prevalence of safety and health programs. As a contribution to the discussion of this issue, this report examines the evidence on effectiveness, costs, and benefits that was cited by different parties during the 1998 rulemaking and in more recent studies.

This report addresses the key question of whether mandatory safety and health programs are effective. Assessing the likely impact of a safety and health program standard requires two separate steps. The first is to estimate the effect on baseline injuries that would result from adopting a certain set of practices. The second is to estimate the extent to which employers will actually adopt those practices.¹ It is important to note that our analysis is concerned with mandatory safety and health programs. We have not carefully evaluated the evidence on the effectiveness of voluntary safety and health programs. There is certainly evidence to suggest

¹ Note that, for the purpose of establishing the “feasibility” of a new standard, OSHA generally assumes that there will be full compliance. Thus, the second step does not enter into that analysis. In contrast, if we are trying to estimate the expected benefits and costs of a new standard, it is necessary to take compliance into account.

that firms that voluntarily and conscientiously administer safety and health programs achieve reductions in injuries and illnesses.

We reviewed a limited set of studies and found that, although they mostly suggest that mandatory safety and health programs reduce injuries and illnesses, there are methodological and confounding factors that render their conclusions uncertain. Thus, these studies do not permit confidence in the effectiveness of mandatory safety and health programs.

As a result, we developed a sensitivity analysis that examines how effective a mandatory safety and health program would have to be to generate benefits that exceed its costs. Using our interpretation of OSHA's data and analyses and improved measures of benefits, we found that reductions in injuries of less than 10 percent could probably generate a positive net benefit. Of course, this conclusion rests on a number of assumptions that are open to challenge. It would be helpful to carry out a more thorough analysis, and, consequently, we suggest several strategies for learning more about the program effects and costs.

Our study also recognized that a mandatory safety and health program standard raises a variety of legal and enforcement issues. Employers expressed concern that requirements would be too vague to tell them clearly what had to be done and would leave too much discretion to compliance officers. They also worried about "double jeopardy," e.g., being cited for both a hazard-specific violation and a safety program violation for not having identified the hazard in its required surveys of the workplace. To gain perspective, we suggest that future studies try to learn from OSHA directors and employers in states with mandatory programs about whether these concerns have materialized in a significant way.

Based on our analysis, we make some recommendations for further research and other steps to clarify the effectiveness, implementation issues, and benefit-cost trade-offs of safety and health programs.

Effectiveness

A number of different types of analyses could help encourage better understanding of the effectiveness of mandatory safety and health programs:

- Examine whether establishments cited for safety and health program violations had higher injury rates prior to the citation than did other firms that were inspected but not cited.
- Examine whether establishments cited for safety and health program violations showed improvement in their injury rates subsequent to the citation, compared to similar establishments that did not get cited.
- Look for associations between safety and health program violations and intermediate metrics of effectiveness, such as measures of management commitment and worker engagement, changes in hazard identification rates, and changes in violation rates of other OSHA standards.
- Conduct more research to understand how changes in state workers' compensation programs could affect workers' reporting of injuries and illnesses.

Implementation and Enforcement

To better clarify the issues and impediments related to the implementation and enforcement of a safety and health program standard, it would be valuable to address the following questions:

- How frequently is the safety and health program standard cited relative to other standards, how often are such violations cited as “serious,” and which elements of a safety and health program standard are most commonly cited?
- What are the states’ enforcement policies, and is there any relationship between these and the evidence about the effectiveness of the state programs?
- What type of training do inspectors receive to judge compliance and enforce the standard? Are there specific training tools or approaches that have been particularly successful?
- What sorts of communication efforts and other special assistance do states provide to employers prior to and during the early phases of implementation?
- What type of feedback have states received from employers regarding implementation and enforcement, and how have states responded to feedback?

Benefits and Costs

An updated and improved analysis of the benefits and costs of a safety and health program standard would benefit from efforts to

- clarify the current industry baseline in terms of workers and establishments that have compliant safety and health programs
- consider the impact of safety and health programs on all injury types rather than just lost-workday injuries
- gather improved data on program costs from interviews, site visits, surveys, and stakeholder input.